Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

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Listing of Claims:

Claims 1-11 (canceled)

Claim 12 (Currently Amended). A method of reducing a crest factor of a data symbol to be transmitted in a multi-carrier data transmission system, in which the data symbol is a function of a plurality of signals provided within a predetermined time interval, each of the plurality of signals allocated to a carrier, each carrier occupying at least one frequency from a transmit data spectrum, at least one carrier having at least some reserved data carrying capacity <u>not provided for data transmission</u>, the method comprising:

(a) performing an <u>inverse Fourier transformation (IFFT)</u> ~~IFFT transformation~~ of the data symbol to be transmitted <u>using a first IFFT module of a second signal path that receives the data symbol in parallel with a first signal path</u>;

(b) identifying peak values within a frame of the IFFT-transformed data symbol above a predetermined threshold <u>using a first unit of the second signal path</u>;

(c) providing a sample correction function <u>at an output of the first unit</u>;

(d) generating one or more vectors by allocating a scaling and phase rotation to the sample correction function according to the amplitude and position of the identified peak values <u>using a second unit of the second signal path</u>;

(e) generating a correction signal in the frequency domain from a linear combination

of the one or more vectors at an output of the second unit;

(f) modifying the peak value of the data symbol to be transmitted by subtracting the correction signal at a combining device arranged to receive the data symbol on the first signal path and to receive the correction signal at an output of the second signal path; and

(g) providing the modified data symbol in the time domain at an output of the combining device.

Claim 13 (Currently Amended). The method according to claim 12, further comprising, after step (b), oversampling at an oversampling unit of the signal path and/or filtering of the IFFT-transformed data symbol at a filter of the signal path.

Claim 14 (Previously Presented). The method according to claim 12, wherein:

the data symbol to be transmitted is in the time domain prior to modification in step (f).

Claim 15 (Previously Presented). The method according to claim 12 wherein:

step (g) further comprises performing an IFFT transformation on the modified data symbol.

Claim 16 (Previously Presented). The method according to claim 12, wherein step (c) further comprises providing the sample correction function as a dirac-like function.

Claim 17 (Previously Presented). The method according to claim 12, wherein the at least one carrier having at least some reserved data carrying capacity is occupied exclusively by zero values.

Claim 18 (Previously Presented). The method according to claim 12, wherein the at least one carrier having at least some reserved data carrying capacity is occupied with additional data.

Claim 19 (Currently Amended). A circuit for reducing a crest factor of a data symbol to be transmitted in a multi-carrier data transmission system, in which the data symbol to be transmitted is a function of a plurality of signals provided within a predetermined time interval, each of the plurality of signals allocated to a carrier, each carrier in each case occupying at least one frequency from a transmit data spectrum, at least one carrier having at least some reserved data carrying capacity <u>not provided for data-transmission</u>, comprising:

(A) a transmit signal path configured to propagate a data signal to be transmitted;

(B) a second signal path arranged in parallel with at least a portion of the transmit path, the second signal path including,

- a first inverse Fourier transformation (IFFT) module configured to transform the data symbol to be transmitted into the time domain,
- a first unit configured to determine at least one peak value within a predetermined time interval of the transformed data signal,
- a second unit configured to generate a correction signal in the frequency

domain from a linear combination of rotated and scaled vectors according to a scaling and position of the peak values determined; and

(C) a combining device connected to an output of the second signal path and to the transmit path configured to superimpose the correction signal on the data symbol to be transmitted on the transmit signal path.

Claim 20 (Previously Presented) The circuit according to claim 19, further comprising:

(D) a second IFFT module configured to transform the data symbol modified by the correction signal.

Claim 21 (Previously Presented). The circuit according to claim 19, wherein the second signal path further comprises a second IFFT module configured to transform the correction signal into the time domain, and wherein the second IFFT module is operably coupled to provide the transformed correction signal to the combining device.

Claim 22 (Previously Presented). The circuit according to claim 19, wherein the second signal path further comprises an oversampling unit configured to oversample the data symbol to be transmitted.

Claim 23 (Previously Presented). The circuit according to claim 19 wherein the second signal path further comprises a non-recursive model filter having a characteristic of one or more filters following the combining device.

Claim 24 (Previously Presented). The circuit according to claim 19 wherein the non-recursive model filter comprises an FIR filter.

Claim 25 (Previously Presented). The circuit according to claim 19, wherein the first unit comprises a programmable processing device.

Claim 26 (Previously Presented). The circuit according to claim 25, wherein the second unit also comprises the programmable processing device.

Claim 27 (Previously Presented). The circuit according to one of claim 21, wherein the second IFFT module is configured such that only a first set of carrier frequencies corresponding to the at least one carrier having at least some reserved data carrying capacity can be supplied to the second IFFT module, and wherein a second set of carrier frequencies can be supplied to the first IFFT module.